

Notice

- 1 **Thanks to Reviewers**
Robert A. Fishman, MD

Editorials

- 3 **Gene Therapy for Duchenne Dystrophy**
Andrew G. Engel, MD
- 5 **Heat-Shock Proteins and Autoimmunity: Implications for Multiple Sclerosis**
Richard M. Ransohoff, MD, and Richard A. Rudick, MD

Original Articles

- 8 **Myoblast Transfer in Duchenne Muscular Dystrophy**
George Karpati, MD, Djordje Ajdukovic, PhD, Douglas Arnold, MD, Robert B. Gledhill, MD, Ronald Guttman, MD, Paul Holland, PhD, Penelope A. Koch, MD, Eric Sbonbridge, PhD, Desmond Spence, MD, Michel Vanasse, MD, Gordon V. Watters, MD, Michael Abrahamowicz, PhD, Catherine Duff, BSc, and Ronald G. Worton, PhD
- 18 **Spinal Fluid Lymphocytes from a Subgroup of Multiple Sclerosis Patients Respond to Mycobacterial Antigens**
Gary Birnbaum, MD, Linda Kotilinek, BS, and Lisa Albrecht, BS
- 25 **Mitochondrial Encephalomyopathy, Lactic Acidosis, Stroke-like Episodes (MELAS): Clinical, Radiological, Pathological, and Genetic Observations**
Betty Koo, MB, BS, Laurence E. Becker, MD, Sylvester Chuang, MD, Frank Merante, Brian H. Robinson, PhD, Daune MacGregor, MD, Ingrid Tein, MD, Vincent B. Ho, MD, Douglas A. McGreal, MD, John R. Wherrett, MD, and William J. Logan, MD
- 33 **Modulation of Motor Cortical Outputs to the Reading Hand of Braille Readers**
Alvaro Pascual-Leone, Angel Cammarota, Eric M. Wassermann, Joaquim P. Brasil-Neto, Leonardo G. Cohen, and Mark Hallett
- 38 **Newly Recognized Congenital Myasthenic Syndrome Associated with High Conductance and Fast Closure of the Acetylcholine Receptor Channel**
Andrew G. Engel, MD, Osvaldo D. Uchitel, MD, Timothy J. Walls, MD, Alexander Nagel, MD, C. Michael Harper, MD, and John Bodensteiner, MD
- 48 **The Human-Severe Combined Immunodeficiency Myasthenic Mouse Model: A New Approach for the Study of Myasthenia Gravis**
Gianvito Martino, MD, Bonita L. DuPont, PhD, Robert L. Wollmann, MD, PhD, Paolo Bongioanni, MD, John Anastasi, MD, José Quintans, MD, PhD, Barry G. W. Arnason, MD, and Luigi M. E. Grimaldi, MD
- 57 **Heterogeneity of Autoantibodies in Stiff-Man Syndrome**
Luigi M. E. Grimaldi, MD, Gianvito Martino, MD, Simona Braghi, MD, Angelo Quattrini, MD, Roberto Furlan, MD, Emanuele Bosi, MD, and Giancarlo Comi, MD
- 65 **Diffuse Microgliosis Associated with Cerebral Atrophy in the Acquired Immunodeficiency Syndrome**
Benjamin B. Gelman, MD, PhD
- 71 **When Does Human Brain Development End? Evidence of Corpus Callosum Growth up to Adulthood**
Jesús Pujol, MD, Pere Vendrell, PhD, Carme Junqué, PhD, Josep L. Martí-Vilalta, MD, and Antoni Capdevila, MD
- 76 **Positron Emission Tomography Measures of Benzodiazepine Receptors in Huntington's Disease**
Vjera A. Holthoff, MD, Robert A. Koeppe, PhD, Kirk A. Frey, MD, PhD, John B. Penney, MD, Dorene S. Markel, MS, David E. Kubl, MD, and Anne B. Young, MD, PhD
- 82 **A Positron Emission Tomography Study of Essential Tremor: Evidence for Overactivity of Cerebellar Connections**
I. H. Jenkins, MRCP, P. G. Bain, MRCP, J. G. Colebatch, FRACP, P. D. Thompson, PhD, L. J. Findley, MD, R. S. J. Frackowiak, MD, C. D. Marsden, DSc, and D. J. Brooks, MD
- 91 **Magnetic Resonance Imaging of Brain and the Neuromotor Disorder in Endemic Cretinism**
Tai Ma, MD, Z. C. Lian, MD, S. P. Qi, MD, E. Ralph Heinz, MD, and G. Robert DeLong, MD
- 95 **The Effects of X Monosomy on Brain Development: Monozygotic Twins Discordant for Turner's Syndrome**
Allan L. Reiss, MD, Lisa Freund, PhD, Leslie Plotnick, MD, Thomas Baumgardner, MA, Kathleen Green, BA, Amanda C. Sozer, PhD, Mark Reader, PhD, Corinne Boehm, MA, and Martha B. Denckla, MD
- 108 **Brief Communication**
Quantitative Cerebrospinal Fluid Cytology in Patients Receiving Intracavitary Chemotherapy
Valentina Russack, MD, Sinil Kim, MD, and Marc C. Chamberlain, MD
- 113 **Letters**
Shared T-Cell Receptor Gene Usage in Experimental Allergic Neuritis and Encephalomyelitis
Stefan Jung, MD, Hans-Peter Hartung, MD, and Klaus V. Toyka, MD
- 114 **Reply**
E. Heber-Katz

- 114 Cerebrospinal Fluid Choline Levels in Parkinson's Disease

Aysel Nasr, MD, Nathalie Bertrand, PhD, Maurice Giroud, MD, Lucia Septien, MD, Pierre Gras, MD, Raymond Dumas, MD, Alain Beley, PhD, and Jean Bralet, PhD

- 115 Transfer of Multiple Sclerosis into Severe Combined Immunodeficiency Mice

Howard L. Lipton, MD

- 116 Noninvasive Diagnosis of the MELAS Syndrome from Blood DNA

Joanna Poulton, DM, MRCP, and Karl Morten, PhD

Regular Departments

- 112 Editor's Note

- 117 Books

NO 2 AUGUST 1993

Editorials

- 121 Lorenzo Oil Therapy for Adrenoleukodystrophy: A Prematurely Amplified Hope

Hugo W. Moser, MD

- 123 The Attraction of Adhesion Molecules

Jack P. Antel, MD, and Trevor Owens, PhD

- 125 The Guillain-Barré Syndrome at 75: The *Campylobacter* Connection

John W. Griffin, MD, and Tony Wei-Hsiu Ho, MD

- 128 What Causes Brain Atrophy in Human Immunodeficiency Virus Infection?

Carol K. Petito, MD

Original Articles

- 130 Serum Antibodies to GM1, GD1b, Peripheral Nerve Myelin, and *Campylobacter jejuni* in Patients with Guillain-Barré Syndrome and Controls: Correlation and Prognosis

Francine J. Vriesendorp, MD, Ban Mishu, MD, Martin J. Blaser, MD, and Carol L. Koski, MD

- 136 The Spectrum of Immune Responses to *Campylobacter jejuni* and Glycoconjugates in Guillain-Barré Syndrome and in Other Neuroimmunological Disorders

Uwe Enders, MD, Helge Karch, PhD, Klaus V. Toyka, MD, Marco Michels, MD, Jürgen Zielasek, MD, Martin Pette, MD, Jürgen Heesemann, MD, and Hans-Peter Hartung, MD

- 145 Inhibition of Experimental Autoimmune Encephalomyelitis by an Antibody to the Intercellular Adhesion Molecule ICAM-1

Juan J. Archelos, MD, Stefan Jung, MD, Mathias Mäurer, MD, Mascha Schmied, MD, Hans Lassmann, MD, Takuya Tamatani, PhD, Masayuki Miyasaka, PhD, Klaus V. Toyka, MD, and Hans-Peter Hartung, MD

- 155 Adhesion Molecule Expression on Cerebrospinal Fluid T Lymphocytes: Evidence for Common Recruitment Mechanisms in Multiple Sclerosis, Aseptic Meningitis, and Normal Controls

Anders Svenningsson, MD, Göran K. Hansson, MD, PhD, Oluf Andersen, MD, PhD, Rune Andersson, MD, PhD, Manuel Patarroyo, MD, PhD, and Sten Stemme, MD, PhD

- 162 Devic's Neuromyelitis Optica: A Clinicopathological Study of 8 Patients

Raúl N. Mandler, MD, Larry E. Davis, MD, Douglas R. Jeffery, MD, and Mario Kornfeld, MD

- 169 Visual Evoked Potentials in Adrenoleukodystrophy: A Trial with Glycerol Trioleate and Lorenzo Oil

Peter W. Kaplan, MB, MRCP, Ronald J. Tusa, MD, PhD, Jan Shankroff, MAS, JoEllen Heller, BA, and Hugo W. Moser, MD

- 175 The Pathophysiology and Pharmacology of Photocortical Reflex Myoclonus

Julio Artieda, MD, and Jose A. Obeso, MD

- 185 Positron Emission Tomographic Findings in Filipino X-Linked Dystonia-Parkinsonism

D. Eidelberg, MD, S. Takikawa, MD, K. Wilhelmsen, MD, V. Dhawan, PhD, T. Chaly, PhD, W. Robeson, MSc, R. Dahl, PhD, D. Margouleff, MD, P. Greene, MD, A. Hunt, DO, S. Przedborski, MD, and S. Fabn, MD

- 192 Abnormal Eye Movements in Creutzfeldt-Jakob Disease

Michael P. Grant, MD, PhD, Mark Cohen, MD, Robert B. Petersen, PhD, G. Michael Halmagyi, MB, BS, Alan McDougall, MB, BS, Ronald J. Tusa, MD, PhD, and R. John Leigh, MD

- 198 The Prevalence of Computed Tomographic Abnormalities of the Cerebrum in 100 Consecutive Children Symptomatic with the Human Immune Deficiency Virus

C. DeCarli, MD, L. A. Civitello, MD, P. Brouwers, PhD, and P. A. Pizzo, MD

- 206 Human Immunodeficiency Virus Type 1 Infection and Myopathy: Clinical Relevance of Zidovudine Therapy

Josep M. Grau, MD, Ferrán Masanés, MD, Enric Pedrol, MD, Jordi Casademont, MD, Joaquim Fernández-Solá, MD, and Alvaro Urbano-Marquez, MD

- 212 Metachromatic Leukodystrophy: Multiple Nonfunctional and Pseudodeficiency Alleles in a Pedigree: Problems with Diagnosis and Counseling

Gordon S. Francis, MD, Azad Bonni, MD, Ning Shen, MD, Peter Hechtman, PhD, Bassem Yamut, MD, Stirling Carpenter, MD, George Karpati, MD, and Patricia L. Chang, PhD

- 219 **Dopa Resistance in Multiple-System Atrophy: Loss of Postsynaptic D2 Receptors**
A. Churchyard, FRACP, G. A. Donnan, MD, FRACP, A. Hughes, FRACP, D. W. Howells, PhD, D. Woodhouse, BSc(Hons), J. Y. F. Wong, MSc, R. M. Kalnins, BMedSci, FRCPA, F. A. O. Mendelsohn, MD, FRACP, PhD, and G. Paxinos, PhD
- 227 **Neuroanatomy of Rett Syndrome: A Volumetric Imaging Study**
Allan L. Reiss, MD, Faisal Faruque, Sakkebai Naidu, MD, Michael Abrams, BA, Terri Beaty, PhD, R. Nick Bryan, MD, and Hugo Moser, MD

Brief Communication

- 325 **Decreased Hippocampal Muscarinic Cholinergic Receptor Binding Measured by 123 I-Iododexetimide and Single-Photon Emission Computed Tomography in Epilepsy**
Hans W. Müller-Gärtner, MD, Helen S. Mayberg, MD, Robert S. Fisher, MD, PhD, Ronald P. Lesser, MD, Alan A. Wilson, PhD, Hayden T. Ravert, PhD, Robert F. Dannals, PhD, Henry N. Wagner, Jr, MD, Sumio Uematsu, MD, and J. James Frost, MD, PhD

Letters

- 239 **Rapid Diagnosis of Cytomegalovirus Polyradiculitis in a Patient with Acquired Immunodeficiency Syndrome**
Jonathan D. Glass, MD, and Yener S. Erozan, MD
- 240 **Mononuclear Metabolic Products and Human Immunodeficiency Virus-associated Neurological Damage**
Michael Rabinoff, PhD

Regular Departments

- 135 **Editor's Note**
- 241 **Books**
- 118th Annual Meeting of the American Neurological Association
- 242 **Program**
- 246 **Abstracts**

NO 3 SEPTEMBER 1993

Editorials

- 321 **Synaptic Plasticity in Alzheimer's Disease**
Robert D. Terry, MD
- 322 **Transplants for Stroke Patients?**
Frank R. Sharp, MD

Original Articles

- 324 **Human Positron Emission Tomographic [18 F]Fluorodopa Studies Correlate with Dopamine Cell Counts and Levels**
B. J. Snow, MD, I. Tooyama, MD, PhD, E. G. McGeer, PhD, T. Yamada, MD, PhD, D. B. Calne, MD, H. Takahashi, MD, and H. Kimura, MD, PhD
- 331 **Correlation of Striatal Fluorodopa Uptake in the MPTP Monkey with Dopaminergic Indices**
Brian D. Pate, PhD, T. Kawamata, MD, T. Yamada, MD, E. G. McGeer, PhD, K. A. Hewitt, B. J. Snow, MD, T. J. Ruth, PhD, and D. B. Calne, MD
- 339 **Cerebral White Matter Changes in Acquired Immunodeficiency Syndrome Dementia: Alterations of the Blood-Brain Barrier**
Christopher Power, MD, Pei-Ann Kong, BSc, Thomas O. Crawford, MD, Steven Wesselingh, BMBS, PhD, Jonathan D. Glass, MD, Justin C. McArthur, MBBS, MPH, and Bruce D. Trapp, PhD

- 351 **Magnetic Stimulation of the Brain in Generalized Epilepsy: Reversal of Cortical Hyperexcitability by Anticonvulsants**
David C. Reutens, MD, Samuel F. Berkovic, MD, Richard A. L. Macdonell, MD, and Peter F. Bladin, MD
- 356 **Quantitative Assessment of Synaptic Density in the Entorhinal Cortex in Alzheimer's Disease**
Stephen W. Scheff, PhD, D. Larry Sparks, PhD, and Douglas A. Price, BS
- 362 **Functional Integration of Cortical Grafts Placed in Brain Infarcts of Rats**
M. Grabowski, MD, PhD, P. Brundin, MD, PhD, and B. B. Johansson, MD, PhD
- 369 **Differential Neural Activity in the Human Temporal Lobe Evoked by Faces of Family Members and Friends**
M. Seeck, MD, N. Mainwaring, J. Ives, H. Blume, MD, PhD, D. Dubuisson, MD, PhD, R. Cosgrove, MD, M.-M. Mesulam, MD, and D. L. Schomer, MD
- 373 **Neuroglial Cholinesterases in the Normal Brain and in Alzheimer's Disease: Relationship to Plaques, Tangles, and Patterns of Selective Vulnerability**
Christopher I. Wright, Changiz Geula, and M.-Marsel Mesulam

- 385 **The T-Cell Response to Myelin Basic Protein in Familial Multiple Sclerosis: Diversity of Fine Specificity, Restricting Elements, and T-Cell Receptor Usage**
Narendra Joshi, PhD, Koichiro Usuku, MD, and Stephen L. Hauser, MD
-

Brief Communications

- 394 **Delayed Appearance of Anti-Myelin-associated Glycoprotein Antibodies in a Patient with Chronic Demyelinating Polyneuropathy**
F. Valldeoriola, MD, F. Graus, MD, A. J. Steck, MD, E. Muñoz, MD, M. de la Fuente, MD, T. Gallart, MD, T. Ribalta, MD, J. A. Bombí, MD, and E. Tolosa, MD
-
- 396 **Conjugal Alzheimer's Disease: Is There an Increased Risk in Offspring?**
T. D. Bird, MD, E. J. Nemens, RN, MA, and W. A. Kukull, PhD
-
- 399 **Cortical Vascular Abnormalities in the Syndrome of Celiac Disease, Epilepsy, Bilateral Occipital Calcifications, and Folate Deficiency**
Annie M. E. Bye, MBBS, FRACP, Frederick Andermann, MD, FRCP(C), Yves Robitaille, MD, M. Oliver, MBBS, T. Bobane, MBBS, FRACP, and Eva Andermann, MD, PhD, FCCMG
-
- 404 **Role of the Left and Right Supplementary Motor Areas in Memory-guided Saccade Sequences**
B. Gaymard, MD, S. Rivaud, and C. Pierrot-Deseilligny, MD
-
- 406 **Failure of 3,4-Diaminopyridine to Reverse Conduction Block in Inflammatory Demyelinating Neuropathies**
Peter S. Bergin, FRACP, David H. Miller, FRACP, Nicholas P. Hirsch, FFARCS, and Nicholas M. F. Murray, FRCP
-
- 410 **A Second Missense Mutation in the Mitochondrial ATPase 6 Gene in Leigh's Syndrome**
D. Daniëlle de Vries, MSc, Baziel G. M. van Engelen, MD, Fons J. M. Gabreëls, MD, PhD, Wim Ruitenbeek, PhD, and Bernard A. van Oost, PhD
-

Letters

- 413 **Pain-triggered Seizures**
Paul R. Dyken, MD, and Joseph B. Green, MD
-
- 413 **Laser Microprobe Mass Analysis in Alzheimer's Disease**
Paul F. Good and Daniel P. Perl, MD
-
- 413 **Reply**
Mark A. Lovell, PhD, William D. Ehmann, PhD, and William R. Markesbery, MD
-
- 415 **Poliovirus Persistence in the Postpolio Syndrome**
M. K. Sharief, MD, PhD
-
- 416 **Reply**
W. Melchers, PhD, M. de Visser, MD, PhD, P. Jongen, MD, A. van Loon, PhD, R. Nibbeling, BSc, P. Oostvogel, MD, D. Willemse, BSc, and J. Galama, MD, PhD
-
- 417 **Aphasic Dementia and Motor Neuron Disease**
Arthur J. Hudson, MD, and Jeff Martzke, PhD
-
- 418 **Reply**
Richard J. Caselli, MD, Anthony J. Windebank, MD, Ronald C. Petersen, PhD, MD, Takashi Komori, MD, J. E. Parisi, MD, Haruo Okazaki, MD, Emre Kokmen, MD, Rita Iverson, RN, Robert P. Dinapoli, MD, Neill R. Graff-Radford, MB, BCh, MRCP, and Steven D. Stein, MD
-

Expedited Publication

- 423 **Positron Emission Tomographic Imaging of the Dopamine Transporter with ¹¹C-WIN 35, 428 Reveals Marked Declines in Mild Parkinson's Disease**
J. James Frost, MD, PhD, Annemie J. Rosier, PhD, Stephen G. Reich, MD, Justin S. Smith, Michael D. Ehlers, BS, Solomon H. Snyder, MD, Hayden T. Ravert, PhD, and Robert F. Dannals, PhD
-

Regular Departments

- 330 **Editor's Note**
-

- 419 **Books**
-

22nd Annual Meeting of the Child Neurology Society

- 432 **Program**

- 442 **Abstracts**
-

Editorials

- 509 **Multiple Sclerosis: Genetic Background versus Environment**
Samia Ragheb, PhD, and Robert P. Lisak, MD
- 511 **Sensory Modulation and the Spinal Cord**
Michael J. Aminoff, MD, FRCP

Neurological Progress

- 513 **The Polymerase Chain Reaction: Application to Nervous System Disease**
Robert B. Darnell, MD, PhD

Original Articles

- 524 **Myelin Basic Protein-specific T-Cell Responses in Identical Twins Discordant or Concordant for Multiple Sclerosis**
Roland Martin, MD, Rbonda Voskuhl, MD, Marjorie Flerlage, Dale E. McFarlin, MD, and Henry F. McFarland, MD
- 536 **Diffuse Noxious Inhibitory Controls in Humans: A Neurophysiological Investigation of a Patient with a Form of Brown-Séquard Syndrome**
Didier Bouhassira, Daniel Le Bars, Francis Bolgert, Dominique Laplane, and Jean-Claude Willer
- 544 **The Polymerase Chain Reaction in the Diagnosis of Lyme Neuroborreliosis**
Andrew R. Pachner, MD, and Elizabeth Delaney, BS
- 551 **β -Amyloid Precursor Epitopes in Muscle Fibers of Inclusion Body Myositis**
Valerie Askanas, MD, PhD, Renate B. Alvarez, MS, and W. King Engel, MD
- 561 **Cytochrome *c* Oxidase Reaction Improves Histopathological Assessment of Zidovudine Myopathy**
Patrick Chariot, MD, Isabelle Monnet, MD, and Romain Gherardi, MD
- 566 **Pathological Markers Associated with Normal Aging and Dementia in the Elderly**
Howard A. Crystal, MD, Dennis W. Dickson, MD, Martin J. Sliwinski, PhD, Richard B. Lipton, MD, Ellen Grober, PhD, Harriet Marks-Nelson, RN, and Phyllis Antis, RN
- 574 **Impairment of Retinal Increment Thresholds in Huntington's Disease**
Walter Paulus, MD, Guntram Schwarz, MD, Annette Werner, PhD, Herwig Lange, MD, Andreas Bayer, MD, M. Hofschuster, MD, Norbert Müller, MD, and Eberhart Zrenner, MD
- 579 **Side of Onset of Motor Symptoms Influences Cognition in Parkinson's Disease**
Rachel Tomer, PhD, Bonnie E. Levin, PhD, and William J. Weiner, MD
- 585 **Toward an Understanding of the Role of Glutamate in Experimental Parkinsonism: Agonist-Sensitive Sites in the Basal Ganglia**
Thomas Klockgether, MD, and Lechoslaw Turski, MD

- 594 **Procedural Learning in Parkinson's Disease and Cerebellar Degeneration**
A. Pascual-Leone, MD, and others
- 603 **The Transport of L-6-Fluorodopa and Its Metabolites from Blood to Cerebrospinal Fluid and Brain**
John P. Hammerstad, MD, and others
- 609 **Oxidative Damage to Mitochondrial DNA Shows Marked Age-dependent Increases in Human Brain**
Patrizia Mecocci, MD, Usha MacGarvey, MS, Allan E. Kaufman, PhD, Deborah Koontz, PhD, John M. Shoffner, MD, Douglas C. Wallace, PhD, and M. Flint Beal, MD

Brief Communications

- 617 **Carbamazepine-induced Heart Block in a Child with Tuberous Sclerosis and Cardiac Rhabdomyoma: Implications for Evaluation and Follow-up**
Spencer G. Weig, MD, and Phyllis Pollack, MD
- 619 **Herpes Simplex Type 1 Encephalitis in Acquired Immunodeficiency Syndrome**
Stella V. Tan, MRCP, Roberto J. Guiloff, FRCP, Francesco Scaravilli, FRCP, Paul E. Klapper, MRCP, Graham M. Cleator, PhD, and Brian G. Gazzard, FRCP
- 622 **Long-term Follow-up of 121 Patients with Benign Fasciculations**
Marcel D. Blehrud, Anthony J. Windebank, MD, and Jasper R. Daube, MD
- 625 **Recurrent Ascending Myelitis: An Unusual Presentation of Herpes Simplex Virus Type 1 Infection**
Woei-Cherng Shyu, MD, Jiann-Chyun Lin, MD, Bao-Chy Chang, MD, Horng-Jyh Harn, MD, PhD, Chan-Chin Lee, MD, and Wen-Long Tsao, MD
- 627 **Ictal Single-Photon Emission Computed Tomography Demonstrates Localized Epileptogenesis in Cortical Dysplasia**
Ruben Kuzniecky, MD, James M. Mountz, MD, PhD, Gregory Wheatley, MD, and Richard Morawetz, MD
- 631 **Cerebrospinal Fluid Inhibits Alzheimer β -Amyloid Fibril Formation In Vitro**
Thomas Wisniewski, MD, Eduardo Castano, MD, Jorge Ghiso, PhD, and Blas Frangione, MD, PhD

Letters

- 634 **Antiparkinson Efficacy of Deprenyl**
David Oakes, PhD, for DATATOP Steering Committee on behalf of Parkinson Study Group
- 634 **Reply**
Michael Schulzer, MD, PhD, E. Mak, BASc, and D. B. Calne, DM

Editorials

- 635 **Superficial Siderosis**
Robert A. Fishman, MD
- 636 **Experimental Allergic Encephalomyelitis as a Guide to the Understanding and Treatment of Multiple Sclerosis**
John N. Whitaker, MD, and Galen W. Mitchell, MD

Neurological Progress

- 638 **Neural Degeneration and the Transport of Neurotransmitters**
Robert H. Edwards, MD

Original Articles

- 646 **The Pathogenesis of Superficial Siderosis of the Central Nervous System**
Arnulf H. Koeppe, MD, Andrew C. Dickson, BS, Richard C. Chu, PhD, and Robert E. Thach, PhD
- 654 **Inhibition of Acute, Experimental Autoimmune Encephalomyelitis by the Synthetic Immunomodulator Linomide**
D. M. Karussis, MD, D. Lehmann, PhD, S. Slavin, MD, U. Vourka-Karussis, MD, R. Mizrachi-Koll, BSc, H. Ovidia, PhD, A. Ben-Nun, PhD, T. Kalland, PhD, and O. Abramsky, MD, PhD
- 661 **Correlation Between Magnetic Resonance Imaging Findings and Lesion Development in Chronic, Active Multiple Sclerosis**
David Katz, MD, Jeffery K. Taubenberger, MD, PhD, Barbara Cannella, PhD, Dale E. McFarlin, MD, Cedric S. Raine, PhD, DSc, FRCPath, and Henry F. McFarland, MD
- 670 **Spastic Paraparesis Associated with Human T-Lymphotropic Virus Type I: A Clinical, Serological, and Genomic Study in Iranian-born Mashhadi Jews**
A. Achiron, MD, PhD, O. Pinhas-Hamiel, MD, L. Doll, PhD, R. Djaldetti, MD, A. Chen, MD, I. Ziv, MD, A. Avni, MD, G. Frankel, PhD, E. Melamed, MD, and B. Shohat, PhD
- 676 **Quinolinic Acid in Children with Congenital Hyperammonemia**
Mark L. Batsbaw, MD, Michael B. Robinson, PhD, Keith Hyland, PhD, Sina Djali, and Melvyn P. Heyes, PhD
- 682 **Forearm 3-Methylhistidine Efflux in Myotonic Dystrophy**
Ziad Rifai, MD, William J. Kingston, MD, Brian McCraith, BS, and Richard T. Moxley III, MD
- 687 **Developmental Changes in Human γ -Aminobutyric Acid_A Receptor Subunit Composition**
A. R. Brooks-Kayal, MD, and D. B. Pritchett, PhD
- 694 **Disequilibrium of Unknown Cause in Older People**
Terry D. Fife, MD, and Robert W. Baloh, MD

- 703 **Interictal Indices of Temporal Seizure Origin**
Warren T. Blume, MD, FRCP(C), Joanna L. Borghesi, BSc(Hons), MSc, and John F. Lemieux, MSc
- 710 **Polysomnographic Sleep Measures in Parkinson's Disease Patients with Treatment-induced Hallucinations**
Cynthia L. Comella, MD, Caroline M. Tanner, MD, and Ruzica K. Ristanovic, MD
- 715 **Chronic Levodopa Administration Alters Cerebral Mitochondrial Respiratory Chain Activity**
Serge Przedborski, MD, PhD, Vernice Jackson-Lewis, MS, Uday Muthane, MBBS, DM, Hong Jiang, MD, Mayra Ferreira, BA, Ali B. Naini, PhD, and Stanley Fabn, MD
- 724 **Evidence for a Central Cholinergic Effect of High-Dose Thiamine**
K. J. Meador, MD, M. E. Nichols, MD, P. Franke, MD, M. W. Durkin, MD, R. L. Oberzan, BA, E. E. Moore, BA, and D. W. Loring, PhD
- 727 **Anterior Temporal Language Areas in Patients with Early Onset of Temporal Lobe Epilepsy**
Orrin Devinsky, MD, Kenneth Perrine, PhD, Rafael Llinas, BA, Daniel J. Luciano, MD, and Michael Dogali, MD
- 733 **Positron Emission Tomographic Studies of Dopa-responsive Dystonia and Early-Onset Idiopathic Parkinsonism**
Barry J. Snow, Torbjørn G. Nygaard, Hirohide Takahashi, and Donald B. Calne

Brief Communications

- 739 **Unverricht-Lundborg Disease: Absence of Nonallelic Genetic Heterogeneity**
J. I. Cochius, MD, D. A. Figlewicz, PhD, R. Kälviäinen, MD, U. Nonsiainen, MD, K. Farrell, MD, G. Patry, MD, B. Söderfeldt, MD, PhD, M. Frydman, MD, P. Lerman, MD, F. Andermann, MD, E. Andermann, MD, PhD, and G. A. Rouleau, MD, PhD
- 742 **Short-term Response to Dietary Therapy in Molybdenum Cofactor Deficiency**
Richard G. Boles, MD, Laura R. Ment, MD, M. Stephen Meyn, MD, PhD, Arthur L. Horwich, MD, Lisa E. Kratz, PhD, and Piero Rinaldo, MD
- 745 **Significance of Reactive Lyme Serology in Multiple Sclerosis**
P. K. Coyle, MD, Lauren B. Krupp, MD, and Carol Doscher, RN, MS

Letters

- 748 **Magnetic Resonance Imaging Measurements and Clinical Changes Accompanying Transtentorial and Foramen Magnum Brain Herniation**
Allan H. Ropper, MD
-
- 748 **Reply**
Fred Plum, MD, Michael Deck, MD,
and Jeffrey Reich, MD
-
- 749 **High Incidence of Hepatitis C Virus Infection in Patients with Cryoglobulinemic Neuropathy**
François-Jérôme Authier, MD,
Jean-Michel Pawlotsky, MD, Jean-Paul Viard, MD,
Loïc Guillemin, MD, Jean-Denis Degos, MD,
and Romain K. Gherardi, MD
-

- 750 **Multifocal Motor Neuropathy or CIDP?**
D. A. Krendel, MD,
and D. A. Costigan, MB, BCH, BAO
-

- 750 **Reply**
Vinay Chaudhry, MD, David R. Cornblath, MD,
John W. Griffin, MD, Andrea M. Corse, MD,
Ralph W. Kuntz, MD, PhD,
and Daniel B. Drachman, MD
-

Expedited Publication

- 752 **The Apolipoprotein ε4 Allele in Patients with Alzheimer's Disease**
Richard Mayeux, MD, Yaakov Stern, PhD,
Ruth Ottman, PhD, Thomas K. Tatemichi, MD,
Ming-Xin Tang, PhD, Gladys Maestre, MD,
Colleen Ngai, BS, Benjamin Tycko, MD, PhD,
and Henry Ginsberg, MD
-

NO 6 DECEMBER 1993

Issues in Clinical Neurology

- 755 **Expanded Clinical Trials of Treatments for Multiple Sclerosis**
John N. Whitaker, MD, for The Advisory Committee
on Clinical Trials of New Agents in Multiple Sclerosis
of The National Multiple Sclerosis Society
-

Neurological Progress

- 757 **Molecular Genetics in Neurology**
Joseph B. Martin, MD, PhD
-

Original Articles

- 774 **Characteristics of Medial Temporal Lobe Epilepsy: I. Results of History and Physical Examination**
J. A. French, MD, P. D. Williamson, MD,
V. M. Thadani, MD, T. M. Darcey, PhD,
R. H. Mattson, MD, S. S. Spencer, MD,
and D. D. Spencer, MD
-
- 781 **Characteristics of Medial Temporal Lobe Epilepsy: II. Interictal and Ictal Scalp Electroencephalography, Neuropsychological Testing, Neuroimaging, Surgical Results, and Pathology**
P. D. Williamson, MD, J. A. French, MD,
V. M. Thadani, MD, J. H. Kim, MD,
R. A. Novelly, PhD, S. S. Spencer, MD,
D. D. Spencer, MD, and R. H. Mattson, MD
-
- 788 **Neuron Loss Localizes Human Temporal Lobe Epilepsy by In Vivo Proton Magnetic Resonance Spectroscopic Imaging**
James W. Hugg, PhD, Kenneth D. Laxer, MD,
Gerald B. Matson, PhD, Andrew A. Maudsley, PhD,
and Michael W. Weiner, MD
-
- 795 **Atrophy of Mesial Structures in Patients with Temporal Lobe Epilepsy: Cause or Consequence of Repeated Seizures?**
F. Cendes, F. Andermann, P. Gloor, I. Lopes-Cendes,
E. Andermann, D. Melanson, M. Jones-Gotman,
Y. Robitaille, A. Evans, and T. Peters
-

- 802 **A New Point Mutation of the Prion Protein Gene in Creutzfeldt-Jakob Disease**
Maurizio Pocchiari, MD, Mirella Salvatore, MD,
Francesca Cutruzzola, PhD, Maurizio Genuardi, MD,
Carlo Travaglini Allocatedi, PhD, Carlo Masullo, MD,
Giorgio Macchi, MD, Giovanni Alemá, MD,
Simona Galgani, MD, You Geng Xi, MD,
Rosella Petraroli, PhD, Maria Chiara Silvestrini, PhD,
and Maurizio Brunori, MD
-

- 808 **A New Inherited Prion Disease (PrP-P105L Mutation) Showing Spastic Paraparesis**
Tetsuyuki Kitamoto, MD, Naoji Amano, MD,
Yasuo Terao, MD, Yoshiko Nakazato, MD,
Toshiyuki Isehiki, MD, Tomohiko Mizutani, MD,
and Jun Tateishi, MD
-

- 814 **Site of Autonomic Deficit in Harlequin Syndrome: Local Autonomic Failure Affecting the Arm and the Face**
Peter D. Drummond, PhD, and James W. Lance, MD
-

- 820 **A 10-Year Experience with Postpump Chorea**
Michael D. Medlock, MD, Robert S. Cruse, DO,
Sally Jo Winek, MD, Dale M. Geiss, MD,
Richard L. Horndasch, MD,
Debra L. Schultz, RN, CNRN,
and Jean C. Aldag, PhD
-

- 827 **The Mutation at nt 8993 of Mitochondrial DNA Is a Common Cause of Leigh's Syndrome**
Filippo M. Santorelli, MD, Sara Shanske, PhD,
Alfons Macaya, MD, Darryl C. DeVivo, MD,
and Salvatore DiMauro, MD
-

- 835 **Electroclinical Signs of Benign Neonatal Familial Convulsions**
E. Hirsch, MD, A. Velez, MD, F. Sella, MD,
B. Maton, MD, A. Grinspan, MD, A. Malafosse, MD,
and C. Marescaux, MD
-

- 842 **Familial Parkinsonism with Depression: A Clinicopathological Study**
K. P. Bhatia, MD, DM, S. E. Daniel, MD, MRCPsych,
and C. D. Marsden, FRs
-

- 848 Serum Antibodies to Purkinje Cells and Dorsal Root Ganglia Neurons in Sensory Neuronopathy Without Malignancy
R. Nemni, MD, M. Camerlingo, MD, R. Fazio, MD, L. Casto, MD, A. Quattrini, MD, D. Mamoli, MD, I. Lorenzetti, BD, N. Canal, MD, and A. Mamoli, MD

- 855 The gp120 Glycoprotein of Human Immunodeficiency Virus Type 1 Binds to Sensory Ganglion Neurons
Slobodan Apostolski, MD, PhD, Terence McAlarney, MD, Angelo Quattrini, MD, Steven W. Levison, PhD, Gorazd Rosoklija, MD, PhD, Alessandra Lugaressi, MD, Massimo Corbo, MD, Saud A. Sadiq, MD, Seth Lederman, MD, PhD, Arthur P. Hays, MD, and Norman Latov, MD, PhD

Brief Communications

- 864 Parvalbumin-Immunoreactive Cortical Neurons in Creutzfeldt-Jakob Disease
Isidro Ferrer, MD, PhD, Romi Casas, MD, and Rosa Rivera, TechD

- 867 Demonstration of Human T-Cell Lymphotropic Virus Type I (HTLV-I) from an HTLV-I Seronegative South Indian Patient with Chronic, Progressive Spastic Paraparesis
Masataka Nishimura, MD, Elizabeth Mingioli, MD, Dale E. McFarlin, MD, and Steven Jacobson, PhD

Letters

- 871 Large Focal Tumor-like Demyelinating Lesions of the Brain
Gordon Francis, MD
871 Reply
John J. Kepes, MD

Indexes to Volume 34

- 877 Author Index
887 Subject Index

Regular Departments

- 874 Books

